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09/670,424	09/26/2000	Makoto Sato	00681/LH	5505

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NEW YORK, NY 10017-2023

EXAMINER
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PARTHASARATHY, PRAMILA

ART UNIT	PAPER NUMBER
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2136

DATE MAILED: 09/02/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/670,424

Applicant(s)

SATO ET AL.

Examiner

Pramila Parthasarathy

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This action is in response to the communication filed on 07/15/2004. Claims 1 – 16 were received for consideration. No preliminary amendments to the specification were filed. Claims 1 – 29 were restricted. Claims 1 – 16 were elected and Claims 17 – 29 were cancelled. Claims 1 – 16 are currently being considered.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taguchi et al. (U.S. Patent No. 5915025 hereinafter "Taguchi") in view of Goldstein (U.S. Patent No. 5,963,642 "Goldstein").

Regarding Claim 1, Taguchi teaches and describes a data processing (database management) apparatus (Taguchi Fig. #1, #2, #3, #4, and Column 5 line 28 – Column 11 line 62) comprising:

an encryption key generation means (specification unit) for generating an encryption key depending on an attribute of encrypted data (specifying whether a key for encryption of data of a column item of a database using a column key common among column items or a row key specific to each row) (Taguchi Fig. 1 #1; Column 3 line 64 – Column 4 line 15; Column 7 lines 40 – 65 and Column 11 lines 3 – 45);

an encryption unit encrypting each column item of the database using a key specified by said encryption key specification unit (Taguchi Fig. 1 #1, #3; Column 4 lines 4 – 15 and Column 7 lines 40 – 65); and

a storage unit storing in memory the database encrypted by said encryption unit (Taguchi Fig. 1 #4, #4a; Column 4 lines 4 – 15 and Column 7 lines 40 - 65 ). Taguchi does not explicitly disclose data processing system is a database.

However, Goldstein teaches and describes a database system for secure storage of encrypted data which has a first information terminal containing a database, and a second information terminal requesting the first information terminal to search the database, and connects the first and second information terminals through a network wherein the data is encrypted and stored securely in the database (Goldstein Fig.5, 6A, 6B and Column 10 lines 28 – 50) and retrieving the encrypted data is transmitted to the first information terminal through the network; and on the first information terminal side, the encrypted database is searched using the retrieving data, and the encrypted data obtained as a search result is returned to the second information terminal (Goldstein Column 13 line 27 – Column 15 line 28). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the

teachings of Taguchi, which explains a data processing apparatus capable of enhancing the level of encryption security comprising encryption generation means, encryption unit, a storage unit and I/O interface logically grouped together, with the teachings of Goldstein, which explains a database system for secure storage of encrypted data with encryption generation means, encryption unit, a storage unit and user terminal wherein the encrypted data is securely stored in the database. One of ordinary skill in the art would have been motivated to perform such a modification because encryption and decryption methods are well known in secure data storage.

Regarding Claim 5, Taguchi discloses a data processing apparatus (Taguchi Fig. #1, #2, #3, #4, and Column 5 line 28 – Column 11 line 62) wherein data of a first type of column item of the database is encrypted using a column key common among the column items, and data of a second type of column item is encrypted using a row key using a column key specific to each row; when the user requests searching the database for the first type of column item, retrieving data input is encrypted using a column key common among the column items, and the encrypted retrieving data is transmitted to the first information terminal; and on the first information terminal side, the encrypted database is searched using the retrieving data, and the encrypted data obtained as a search result is returned to the user (Taguchi Column 3 line 64 – Column 4 line 15; Column 7 lines 40 – 65 and Column 11 lines 3 – 45). Taguchi does not explicitly disclose a first information terminal containing a database, and a second information terminal requesting the first information terminal to search the database,

and connecting the first and second information terminals through a network and search result to be returned to the second information terminal through the network.

However, Goldstein teaches and describes a database system for secure storage of encrypted data which has a first information terminal containing a database, and a second information terminal requesting the first information terminal to search the database, and connects the first and second information terminals through a network wherein the data is encrypted and stored securely in the database (Goldstein Fig.5, 6A, 6B and Column 10 lines 28 – 50) and the encrypted retrieving data is transmitted to the first information terminal through the network; and on the first information terminal side, the encrypted database is searched using the retrieving data, and the encrypted data obtained as a search result is returned to the second information terminal through the network (Goldstein Column 13 line 27 – Column 15 line 28). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Taguchi, which explains a data processing apparatus capable of enhancing the level of encryption security comprising encryption generation means, encryption unit, a storage unit and I/O interface logically grouped together, with the teachings of Goldstein, which explains a database system for secure storage of encrypted data with encryption generation means, encryption unit, a storage unit and user terminal in a distributed environment wherein the first and the second information terminals exchanging information through a network as suggested by Taguchi (Taguchi Column 8 lines 21 – 59 and Column 9 lines 38 – 40). One of ordinary skill in the art would have been motivated to perform such a modification because encryption and

decryption methods are well known in secure data storage and distributed networked environment.

Regarding Claim 6, Taguchi teaches and describes a database management apparatus which manages a database in which data is encrypted using a column key common among predetermined column items (Taguchi Fig. #1, #2, #3, #4; Column 3 line 64 – Column 4 line 15 and Column 5 line 28 – Column 11 line 62), comprising:

an encryption unit encrypting input retrieving data using a column key when data is retrieved from predetermined column items (Taguchi Fig. 1 #1, #3; Column 4 lines 4 – Column 5 line 18 and Column 7 lines 40 – 65); and

a retrieval unit retrieving data by comparing the encrypted retrieving data with each item data of the encrypted database (Taguchi Column 19 line 16 – Column 20 line 56 and Column 21 lines 41 – 48). Taguchi does not explicitly disclose data processing system is a database.

However, Goldstein teaches and describes a database system for secure storage of encrypted data which has a first information terminal containing a database, and a second information terminal requesting the first information terminal to search the database, and connects the first and second information terminals through a network wherein the data is encrypted and stored securely in the database (Goldstein Fig.5, 6A, 6B and Column 10 lines 28 – 50) and retrieving the encrypted data is transmitted to the first information terminal through the network; and on the first information terminal side, the encrypted database is searched using the retrieving data, and the encrypted data

obtained as a search result is returned to the second information terminal (Goldstein Column 13 line 27 – Column 15 line 28). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Taguchi, which explains a data processing apparatus capable of enhancing the level of encryption security comprising encryption generation means, encryption unit, a storage unit and I/O interface logically grouped together, with the teachings of Goldstein, which explains a database system for secure storage of encrypted data with encryption generation means, encryption unit, a storage unit and user terminal wherein the encrypted data is securely stored in the database. One of ordinary skill in the art would have been motivated to perform such a modification because encryption and decryption methods are well known in secure data storage.

Regarding Claim 8, Taguchi teaches and describes a computer-readable storage medium storing a program used to direct a computer to perform the process (Taguchi Fig. #1, #2, #3, #4; Column 3 line 64 – Column 4 line 15 and Column 5 line 28 – Column 11 line 62), comprising:

encryption of data of a first type of column item of a database using a column key common among column items, and encrypting data of a second type of column item using a row key specific to each row; and searching encrypted database obtained as a result of the encrypting function (Taguchi Fig. 1 #1; Column 3 line 64 – Column 5 line 18; Column 7 lines 40 – 65; Column 11 lines 3 – 45 and Column 19 lines 31 – 37). Taguchi does not explicitly disclose data processing system is a database.



However, Goldstein teaches and describes a database system for secure storage of encrypted data which has a first information terminal containing a database, and a second information terminal requesting the first information terminal to search the database, and connects the first and second information terminals through a network wherein the data is encrypted and stored securely in the database (Goldstein Fig.5, 6A, 6B and Column 10 lines 28 – 50) and searching the encrypted data to be transmitted to the first information terminal through the network; and on the first information terminal side, the encrypted database is searched using the retrieving data, and the encrypted data obtained as a search result is returned to the second information terminal (Goldstein Column 13 line 27 – Column 15 line 28). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Taguchi, which explains a data processing apparatus capable of enhancing the level of encryption security comprising encryption generation means, encryption unit, a storage unit and I/O interface logically grouped together, with the teachings of Goldstein, which explains a database system for secure storage of encrypted data with encryption generation means, encryption unit, a storage unit and user terminal wherein the encrypted data is securely stored in the database. One of ordinary skill in the art would have been motivated to perform such a modification because encryption and decryption methods are well known in secure data storage.

Regarding Claim 9, Taguchi teaches and describes a computer-readable storage medium storing a program used to direct a computer to perform the process (Taguchi

Fig. #1, #2, #3, #4; Column 3 line 64 – Column 4 line 15 and Column 5 line 28 – Column 11 line 62), comprising:

encryption of data of a first type of column item of a database using a column key common among column items, and encrypting input retrieving data using column key when data is retrieved from predetermined column items; and retrieving data by comparing the encrypted retrieving data with each item data of the encrypted database (Taguchi Fig. 1 #1; Column 3 line 64 – Column 5 line 18; Column 7 lines 40 – 65; Column 11 lines 3 – 45; Column 19 lines 31 – 37 and Column 21 lines 41 – 48). Taguchi does not explicitly disclose data processing system is a database.

However, Goldstein teaches and describes a database system for secure storage of encrypted data which has a first information terminal containing a database, and a second information terminal requesting the first information terminal to search the database, and connects the first and second information terminals through a network wherein the data is encrypted and stored securely in the database (Goldstein Fig.5, 6A, 6B and Column 10 lines 28 – 50) and retrieving the encrypted data is transmitted to the first information terminal through the network; and on the first information terminal side, the encrypted database is searched using the retrieving data, and the encrypted data obtained as a search result is returned to the second information terminal (Goldstein Column 13 line 27 – Column 15 line 28). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Taguchi, which explains a data processing apparatus capable of enhancing the level of encryption security comprising encryption generation means, encryption

unit, a storage unit and I/O interface logically grouped together, with the teachings of Goldstein, which explains a database system for secure storage of encrypted data with encryption generation means, encryption unit, a storage unit and user terminal wherein the encrypted data is securely stored in the database. One of ordinary skill in the art would have been motivated to perform such a modification because encryption and decryption methods are well known in secure data storage.

Regarding Claim 10, Taguchi teaches and describes a database management apparatus, comprising:

a first encryption unit encrypting data of a first type of column item of a database using a column key common among column items, and encrypting data of a second type of column item using a row key specific to each row; a second encryption unit encrypting data the row key used in encrypting the data of the second type of column item of a database by said first encrypting unit using another key common among rows (Taguchi Fig. 1; Column 3 line 64 – Column 4 line 15 and Column 7 lines 40 – 65); and

a storage unit storing in memory the database encrypted by said first encryption unit with the row key encrypted by said second encryption unit (Taguchi Fig. 1 #4, #4a; Column 4 lines 4 – 15 and Column 7 lines 40 – 65). Taguchi does not explicitly disclose data processing system is a database and that the database encrypted using row key encrypted by second encryption unit.

However, Goldstein teaches and describes a database system for secure storage of encrypted data which has a first information terminal containing a database,

and a second information terminal requesting the first information terminal to search the database, and connects the first and second information terminals through a network wherein the data is encrypted and stored securely in the database (Goldstein Fig.5, 6A, 6B and Column 10 lines 28 – 50) and the encrypted retrieving data is transmitted to the first information terminal through the network; and on the first information terminal side, the encrypted database is searched using the retrieving data, and the encrypted data obtained as a search result is returned to the second information terminal (Goldstein Column 13 line 27 – Column 15 line 28). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Taguchi, which explains a data processing apparatus capable of enhancing the level of encryption security comprising encryption generation means, encryption unit, a storage unit and I/O interface logically grouped together, and to have a second encryption unit for row key which is functionally similar to the first encryption unit, with the teachings of Goldstein, which explains a database system for secure storage of encrypted data with encryption generation means, encryption unit, a storage unit and user terminal wherein the encrypted data is securely stored in the database. One of ordinary skill in the art would have been motivated to perform such a modification because encryption and decryption methods are well known in secure data storage.

Regarding Claim 13, Taguchi discloses a data processing apparatus (Taguchi Fig. #1, #2, #3, #4, and Column 5 line 28 – Column 11 line 62) wherein the database is encrypted and the encrypted database is stored in a portable storage medium, and the

storage medium is distributed (Taguchi Column 8 lines 17 – 59); and when the user requests searching the database for the first type of column item, retrieving data input is encrypted using a column key common among the column items, the encrypted retrieving data is decrypted (Taguchi Column 17 line 61 – Column 18 line 3 and Column 19 line 16 – Column 20 line 44) and data obtained as a search result is returned to the user (Taguchi Column 3 line 64 – Column 4 line 15; Column 7 lines 40 – 65 and Column 11 lines 3 – 45). Taguchi does not explicitly disclose a first information terminal containing a database, and a second information terminal requesting the first information terminal to search the database, and connecting the first and second information terminals through a network and search result to be returned to the second information terminal through the network.

However, Goldstein teaches and describes a database system for secure storage of encrypted data which has a first information terminal containing a database, and a second information terminal requesting the first information terminal to search the database, and connects the first and second information terminals through a network wherein the data is encrypted and stored securely in the database (Goldstein Fig.5, 6A, 6B and Column 10 lines 28 – 50) and the encrypted retrieving data is transmitted to the first information terminal through the network; and on the first information terminal side, the encrypted database is searched using the retrieving data, and the encrypted data obtained as a search result is returned to the second information terminal through the network (Goldstein Column 13 line 27 – Column 15 line 28). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made

to modify the teachings of Taguchi, which explains a data processing apparatus capable of enhancing the level of encryption security comprising encryption generation means, encryption unit, a storage unit and I/O interface logically grouped together, with the teachings of Goldstein, which explains a database system for secure storage of encrypted data with encryption generation means, encryption unit, a storage unit and user terminal in a distributed environment wherein the first and the second information terminals exchanging information through a network as suggested by Taguchi (Taguchi Column 8 lines 21 – 59 and Column 9 lines 38 – 40). One of ordinary skill in the art would have been motivated to perform such a modification because encryption and decryption methods are well known in secure data storage and distributed networked environment.

Regarding Claim 16, Taguchi teaches and describes a computer-readable storage medium storing a program used to direct a computer to perform the process, comprising:

encryption of data of a first type of column item of a database using a column key common among column items, and encrypting data of a second type of column item using a row key specific to each row; and encrypting a row key used in encrypting data of a second type of column item of the database by said first encrypting function using another key common among rows (Taguchi Fig. 1; Column 3 line 64 – Column 4 line 15 and Column 7 lines 40 – 65). Taguchi does not explicitly disclose data processing system is a database.

However, Goldstein teaches and describes a database system for secure storage of encrypted data which has a first information terminal containing a database, and a second information terminal requesting the first information terminal to search the database, and connects the first and second information terminals through a network wherein the data is encrypted and stored securely in the database (Goldstein Fig.5, 6A, 6B and Column 10 lines 28 – 50) and retrieving the encrypted data is transmitted to the first information terminal through the network; and on the first information terminal side, the encrypted database is searched using the retrieving data, and the encrypted data obtained as a search result is returned to the second information terminal (Goldstein Column 13 line 27 – Column 15 line 28). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Taguchi, which explains a data processing apparatus capable of enhancing the level of encryption security comprising encryption generation means, encryption unit, a storage unit and I/O interface logically grouped together, with the teachings of Goldstein, which explains a database system for secure storage of encrypted data with encryption generation means, encryption unit, a storage unit and user terminal wherein the encrypted data is securely stored in the database. One of ordinary skill in the art would have been motivated to perform such a modification because encryption and decryption methods are well known in secure data storage.

Claim 2 is rejected as applied above in rejecting claim 1. Furthermore, Taguchi teaches and describes a data processing (database management) apparatus (Taguchi Fig. #1, #2, #3, #4, and Column 5 line 28 – Column 11 line 62) further comprising:

a database search unit encrypting data input for retrieval using a row key common among predetermined column items when column items encrypted using the common row key is to be retrieved, comparing the encrypted retrieving data with each item data of the encrypted database stored in the memory, and performing retrieving process (Taguchi Column 21 lines 41 – 48).

Claim 3 is rejected as applied above in rejecting claim 1. Furthermore, Taguchi teaches and describes a data processing (database management) apparatus (Taguchi Fig. #1, #2, #3, #4, and Column 5 line 28 – Column 11 line 62), wherein said encryption unit encrypts data of a predetermined column item using a combination of a row key specific for each row and a column key common among corresponding column items (Taguchi Column 17 lines 9 – 44 and Column 21 lines 29 – 40).

Claim 4 is rejected as applied above in rejecting claim 1. Furthermore, Taguchi teaches and describes a data processing (database management) apparatus (Taguchi Fig. #1, #2, #3, #4, and Column 5 line 28 – Column 11 line 62) wherein said encryption unit generates sequential vectors in a multidimensional space based on a predetermined function, and encrypting a database using the row key and the column key as a constant of the function in an encryption system using elements in the vectors



as a key stream of encryption (Taguchi Column 17 lines 9 – 44 and Column 21 lines 29 – Column 22 line 30; Goldstein Column 4 line 64 – Column 8 line 67 and Column 25 lines 5 – 59).

Claims 7 and 12 are rejected as applied above in rejecting claims 1 and 10. Furthermore, Taguchi teaches and describes a data processing (database management) apparatus (Taguchi Fig. #1, #2, #3, #4, and Column 5 line 28 – Column 11 line 62), comprising

a plaintext data obtaining unit obtaining unit obtaining plaintext data to be encrypted (Taguchi Column 9 lines 15 – 30 and Column 17 line 61 – Column 18 line 3);

a vector generation unit sequentially generating vectors defined in a closed area of an  $n(n \geq 1)$ -dimensional space using a function determined using at least the column key or a row key; and a logical operation unit performing a logical operation in bits units using the plaintext data obtained by said plaintext data obtaining unit and elements of the vectors generated by said vector generation unit, and generating encrypted data (Taguchi Column 9 lines 15 – 30 and Column 17 line 61 – Column 18 line 3; Goldstein Column 4 line 64 – Column 8 line 67 and Column 25 lines 5 – 59).

Claim 11 is rejected as applied above in rejecting claim 10. Furthermore, Taguchi teaches and describes a data processing (database management) apparatus (Taguchi Fig. #1, #2, #3, #4, and Column 5 line 28 – Column 11 line 62) wherein, said row key is

generated by a row number assigned to each row of said database and a random number (Goldstein Column 23 line 58 – Column 26 line 65).

Claim 14 is rejected as applied above in rejecting claim 13. Furthermore, Taguchi teaches and describes a data processing (database management) apparatus (Fig. #1, #2, #3, #4, and Column 5 line 28 – Column 11 line 62), wherein

said first terminal unit encrypts data of a first type of column item of the database using a column key common among the column items, encrypts data of a second type of column item using a row key using a column key specific to each row, and encrypts the row key using another key common among rows; and said encrypted database is stored with the row key after the encryption in a storage area (Taguchi Fig. 1; Column 3 line 64 – Column 4 line 15 and Column 7 lines 40 – 65).

Claim 15 is rejected as applied above in rejecting claim 13. Furthermore, Taguchi teaches and describes a data processing (database management) apparatus (Fig. #1, #2, #3, #4, and Column 5 line 28 – Column 11 line 62), wherein

said storage area stores the encrypted database in first terminal unit, and a predetermined program for searching the encrypted database (Taguchi Column 3 line 57 – Column 5 line 18 and Column 10 line 54 – Column 11 line 25).

**Conclusion**

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks, Washington, D.C. 20231 **or**  
**faxed to:** (703) 872-9306 for all formal communications.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal  
Drive, Arlington, VA, Fourth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the  
examiner should be directed to Pramila Parthasarathy whose telephone number is 703-  
305-8912. The examiner can normally be reached on 8:00a.m. To 5:00p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's  
supervisor, Ayaz Sheikh can be reached on 703-305-9648. The fax phone number for  
the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or  
proceeding should be directed to the receptionist whose telephone number is 703-305-  
3900.

**Pramila Parthasarathy**  
**Patent Examiner**  
**703-305-8912**  
August 27, 2004.

  
AYAZ SHEIKH  
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